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Study of School Bus Transportation in Ca
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STUDY OF SCHOOL BUS
TRANSPORTATION
IN CALGARY AND EDMONTON

Department of Education
Edmonton

August 1969

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STUDY OF SCHOOL BUS
TRANSPORTATION
IN CALGARY AND EDMONTON

DEPARTMENT OF EDUCATION
EDMONTON

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Appendices

I - INTRODUCTION

The Government of Alberta, through its School Foundation Program, allocates funds to School Boards to help meet the costs of providing student transportation. The formula according to which support is given, has been developed largely on the basis of rural areas.

INITIAL CITY CLAIMS

The cities did not originally claim any support under the Program. However, they started to make claims in isolated instances, where pupils had to be transported to other schools because their nearest facility could not accommodate them. When the City of Edmonton annexed the community of Jasper Place, with a school bus transportation system depending on the provincial grant, the trend towards more provincial support of bussing was accelerated.

ACCELERATION

The acceleration in costs claimed from the Foundation Program has continued in three ways. First, as Edmonton has provided transportation for more and more of the students which the present regulations permit, Calgary has had to yield to pressure to provide similar service to its students. Secondly, as specialized high schools have been built, the demands for transportation have increased. Thirdly, the Edmonton Transit System (ETS) made a substantial increase in its children's and students' fares, which had the effect of about

trebling in one year the amount being claimed for students' bus tickets and passes.

STUDY

It was the rise in ETS fares which prompted the Department of Education to engage Kates, Peat, Marwick & Co. to study the present financing formula and to make recommendations. The terms of reference of the Order-in-Council are reproduced in Appendix A.

REPORT

In the report which follows, we describe the present systems in the two cities and analyze the costs which have been incurred over the last three years. For comparative purposes, we present information collected on practice elsewhere.

With these findings as background, we then discuss the reasons for the grants and make recommendations for a financing formula. A method by which School Boards could incorporate these funds into a transportation support program is suggested.

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Study

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Report

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With these things as background, we then discuss the reasons for the present and make recommendations for a financing formula. A system by which School Boards could incorporate these funds into a transportation support program is suggested.

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TABLE 1

ENROLMENTS AND NUMBERS OF SCHOOLS

		<u>Elementary</u>	<u>Junior High</u>	<u>Senior High</u>	<u>TOTAL</u>
Edmonton Public	Enrolment	37,493	16,763	16,254	70,510
	No. of Schools	102	40	10	152
Edmonton Separate	Enrolment	16,713	6,412	5,726	28,851
	No. of Schools	54	30	6	90
Calgary Public	Enrolment	39,900	17,478	14,060	71,438
	No. of Schools	114	43	13	170
Calgary Separate	Enrolment	11,272	4,444	3,081	18,797
	No. of Schools	44	18	3	65
The Four School Boards	Enrolment	109,378	45,097	39,121	189,596
	No. of Schools	314	131	32	477

TABLE 2

AVERAGE ENROLMENTS AND AREAS SERVED

		<u>Elementary</u>	<u>Junior High</u>	<u>Senior High</u>
Edmonton Public	Average Enrolment	368	415	1625
	Average Sq. Miles	0.8	2.1	8.5
Edmonton Separate	Average Enrolment	310	214	954
	Average Sq. Miles	1.6	2.8	14.3
Calgary Public	Average Enrolment	350	406	1082
	Average Sq. Miles	1.3	3.5	11.5
Calgary Separate	Average Enrolment	256	247	1027
	Average Sq. Miles	3.4	8.3	50.0

II - DESCRIPTION OF PRESENT SYSTEMS

The four School Boards in the two cities differ significantly, not only in their pupil enrolments, numbers of schools and the sizes of their enrolment areas, but also in their criteria as to who receives free transportation. The combination of these different factors results in fairly large differences in the numbers of students being transported and in the claims made by the four Boards.

ENROLMENT STATISTICS

The Edmonton and Calgary Public School Boards each have an enrolment of about 70,000 (Table 1). The Separate School Boards have considerably smaller numbers - Edmonton 30,000, Calgary 20,000.

In general, the average elementary school tends to cater for about 300 children, located within an area of about one square mile (Table 2). Junior high schools tend to cater for about 400 students in the public systems and 200 in the separate systems, coming from an area of about three square miles. Senior high schools tend to cater for about 1,000 students, within an area of about ten square miles.

The important exceptions to these generalizations are the Edmonton Public senior high schools which have an average enrolment of 1,600 students, and the Calgary Separate School system, which has to draw from larger areas to gather enough students to support a school.

There are also differences in the nature of the outlying parts

of the two cities. Calgary's 150 square miles include large tracts of farmland, while Edmonton's 85 square miles are almost entirely urban. In the inner regions, a typical Calgary school serves a smaller geographical region than an Edmonton School. However, at the periphery, Calgary has a greater transportation problem.

CRITERIA USED IN PROVIDING FREE TRANSPORTATION

The two Edmonton Boards use the same criteria in establishing their transportation systems and they integrate their planning. The main points to emphasize are:

- Everyone living over 1.5 miles from school is provided with free transportation
- where regular transit is adequate, free tickets or passes are supplied
- regular ETS equipment is used to provide an exclusive school service on some routes (7 buses)
- elsewhere contract buses are used (88 buses)
- Edmonton Transit System acts as agent and consultant in planning and chartering
- there is limited staggering of school starting hours.

In Calgary, the amount of bussing is much less and greater reliance has been placed on the use of public transit. Contract buses are generally used only in Calgary's rural areas. In general, students have been required to walk (or be responsible for their own transportation), unless they live relatively far away:

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TABLE 3

NUMBER OF CHILDREN BEING TRANSPORTED

	<u>Elementary</u>	<u>Junior High</u>	<u>Senior High</u>	<u>TOTAL</u>
Edmonton Public	240	2,177	8,095	10,512
Edmonton Separate	300*	2,200*	3,334	5,834
Calgary Public	595	1,539	3,108	5,242
Calgary Separate	283	1,357	1,277	2,917
Estimates of Potential Entitled to Claim:				
Calgary Public	595	1,740	6,060	8,395
Calgary Separate	283	1,357	2,380	4,020

*Estimated data. Only senior high
obtained in detail.

TABLE 4

PERCENTAGES OF ENROLMENT BEING TRANSPORTED

	<u>Elementary</u>	<u>Junior High</u>	<u>Senior High</u>
Edmonton Public	0.6	13	50
Edmonton Separate	1.8	31	58
Calgary Public	1.5	9	22
Calgary Separate	2.5	31	41
<u>ENTITLED TO CLAIM</u>			
Calgary Public	1.5	10	43
Calgary Separate	2.5	31	77

- senior high school students - 3 miles
- junior high school students - 2 miles
- elementary school students - 1.5 miles

Since January 1, 1969, under pressure from the Edmonton situation, Calgary Public School board has reduced its limits for senior high school students to two miles. Calgary Separate School Board accepts responsibility for elementary school children living beyond a mile from school, but it does not claim reimbursement unless they live over 1.5 miles away.

Neither School Board staggers school starting hours to reduce transportation costs.

NUMBER OF CHILDREN BEING TRANSPORTED

Almost 25,000 students receive free transportation at present, with Edmonton Public School Board accounting for over 10,000 of these, (Table 3) because of its criteria of service and its enrolment. If Calgary Public School Board has the same criteria, its numbers supported would rise to an estimated 8,400.

In the public school systems, the proportions of the enrolment being transported free, are approximately:

- elementary 1%
- junior high 10%
- senior high 45%

Calgary's present senior high proportion is 22% but this is due to the

two mile limit.

In the separate school systems, which have to serve greater areas, the proportions transported free are, of course, higher, being approximately:

- elementary 2%
- junior high 30%
- senior high 65%

Again Calgary's senior high proportion is lower because it has a three mile limit.

The data on which these approximate percentages are based are shown in Table 4.

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TABLE 5

Costs (in \$1,000's) of Providing Student Transportation

		COSTS			CLAIM			DIFFERENCE Paid by School Board
		Tickets	Contract	Total	Tickets	Contract	Total	
Edmonton Public	-1968*	657	402	1059	217	302	519	540
	-1967	201	292	493	181	272	453	40
	-1966	160	227	387	144	227	371	16
Edmonton Separate	1968	188	156	344	61	135	196	148
	-1967	64	126	190	58	126	184	6
	-1966	132	0	132	119	0	119	13
Calgary Public	-1968	171	237	408	94	195	289	119
	-1967	102	187	289	91	184	275	14
	-1966	75	117	192	68	117	185	7
Calgary Separate	-1968	129	59	188	113	46	159	29
	-1967	117	52	169	105	47	152	17
	-1966	69	32	101	62	32	94	7
TOTAL	-1968	1145	854	1999	485	678	1163	836
	-1967	484	657	1141	435	629	1064	77
	-1966	436	376	812	393	376	769	43

* School Board estimated data: believed to be an over-estimate.

III - ANALYSIS OF COSTS

In analyzing the costs of providing student transportation, it is necessary to look at three different facets:

- the history of the costs
- the breakdown of the costs
- the allocation of the costs.

Costs have risen sharply over the last few years, as is apparent in Table 5. Parts of these costs have been borne by different sectors of the community - Province, City, School Boards, parents. As these different sectors have changed their regulations, the burden of sharing the costs has shifted from one group to another.

HISTORY OF THE COSTS

All four School Boards have experienced substantial increases in the costs of transportation during the last three years. These increases have occurred for various reasons:

- rapid population growth in the two cities
- an increase in the proportion of students staying on into the senior high school grades
- the specialization of high schools, such as the W. P. Wagner vocational school
- increases in charter rates and transit fares
- increases in the number of students made eligible for transportation by changes in local School Board regulations.

The combined effect of these factors has been to cause costs incurred by the Boards to double between 1966 and 1968.

BREAKDOWN OF COSTS

Contract bussing with present practice is more expensive for a School Board than the use of public transit services. Its average cost (Table 6) is about \$120 per pupil per year for any of the School Boards, whereas the cost of transit varies from \$40 to \$80.

TABLE 6
Annual 1968 Costs Per Pupil

	Tickets	Contract
Edmonton Public	79.60	126.40
Edmonton Separate	44.30	120.00
Calgary Public	61.80	115.20
Calgary Separate	42.90	124.10

Contract Bus

The economics of contract buses are illustrated by Calgary, where the average bus, chartered at \$25 a day (or \$5,000 per year) carries an average load of 42 students (thus costing about \$120 per pupil per year). In Edmonton, the chartering rate is closer to \$32 a day, but the number of students per bus is higher.

Transit Riding

For transit riding at an adult fare of 20 cents (Edmonton), the annual cost for 400 rides would be \$80. Charges are lower than this for children under 14, where a 2 for 25 cents fare would produce an annual bill of \$50.

Differences Between Contract Buses and Transit

There are three major factors which account for the difference in costs between contract buses and transit:

- the number of standing passengers
- the efficiency of use of the vehicle
- the existence of reduced student fares on transit.

Contract buses do not carry standing passengers, which clearly increases the unit cost of carrying the students. There would appear to be no reason why on city streets, the regulations should not permit a Board to plan for a reasonable (say 25%) standing load. This would require that contract buses be suitably and safely equipped with stanchions and hanging straps.

Also with present policies, many contract buses are used only once each morning and once each afternoon. Staggering of school hours would permit several uses per day per bus, thus reducing costs further. In parts of the city of Edmonton where this has been done and where transportation is by contract, the buses have been used an average of 1.7 times each. Assuming some longer trips where multiple use of the bus

is not possible, an average of 1.6 trips per bus would be a conservative target for efficient use. (In Calgary, where only the rural trips are by contract, this usage could not be achieved by the contract buses, but the average bus - CTS and contract - would be expected to sustain this average).

A contract bus with 25% standing load, making an average of 1.6 trips each morning, would cost the School Boards about \$60 per pupil per year. While transit charges to Boards are sometimes less than this value, there is no reason to believe that the real costs incurred by the transit company are, in fact, lower. The student travels at peak times only, and with the present school locations, normally in the same direction as the peak flow. He may possibly cost more than the average adult if there is no staggering of school hours to spread the load.

ALLOCATION OF THE COSTS

In the years 1966-68, the transportation cost of students living over 1.5 miles from school were borne by:

- the School Foundation Program
- the transit systems with their subsidized low fares
- the parents of Calgary students who lived between 1.5 miles and the appropriate two or three mile boundary.

By early 1969 the fare increases had lifted much of the load from the transit systems, the boundary extensions had lifted some of the load from Calgary parents, and the Provincial cost-holding measure had

kept their grants under control. As is shown in the last column of Table 5, this left the School Boards with responsibilities for increased charges beyond their control.

It therefore appears desirable in any new formula to agree on apportioning of financial responsibility in order to prevent large fluctuations in the acceptance of responsibility in future.

IV - PRACTICE ELSEWHERE

As a guide to deciding what a "fair" formula might be for Edmonton and Calgary, information has been gathered on what is being done in other major cities across Canada: Halifax, Montreal, Ottawa, Toronto, Hamilton, Winnipeg, Regina, Saskatoon and Vancouver.

In general, compared to Alberta, very little is being done elsewhere. Four of the nine cities have no special school buses whatever. Two employ a few school buses for which the Boards pay themselves, and the remaining two have some school buses which are partially subsidized by provincial governments.

The general picture which emerges is that Canadian city administrations which have rural areas left (and the surrounding metropolitan municipalities of those that do not) do provide school bus transportation. However, except in special circumstances (e.g. a temporary transfer of a school overload or the transport of handicapped children) no other cities provide school bus transportation within the urbanized area served by transit.

The particular situations in the various cities are described below.

1. Halifax

The Province of Nova Scotia subsidizes school transportation for those children living over $2\frac{1}{4}$ miles from school. The amount of subsidy varies according to the tax assessment strength of an area - ranging

from 25% of the costs in Halifax to 85% of the costs in some rural areas. Halifax only recently became eligible for such subsidies when it annexed a large suburban area where a school transportation system was already in existence. This system has been maintained, but has not been extended into the rest of Halifax. Pupils using the regular Halifax transit system receive no Provincial support, the reduced student fares being essentially subsidized by other transit riders or absorbed as a deficit by the transit company.

2. Montreal

In the Province of Quebec, the provincial government subsidizes school transportation with the specific exception of the metropolitan areas of Montreal and Quebec. Greater Montreal has thirteen regional and local school commissions, each of which establishes its own standards for providing transportation. Generally they tend to transport children living more than one mile from school, particularly elementary school children. In most cases the school commissions meet all the costs, but in a few areas the pupils are required to contribute by buying monthly tickets. Pupils who ride on regular transit do so at student rates and the public transit company absorbs any losses incurred.

3. Ottawa

The Ottawa School Board supplies some special school bus service at its own expense to the rural areas within its boundaries. Eligible pupils are those residing more than $1\frac{1}{4}$ miles from school and who would have to walk from areas with no sidewalks. The public transit company absorbs any losses due to transportation of children at a student fare.

4. Toronto and Hamilton

In the Province of Ontario, the provincial government subsidizes school transportation according to a formula specifying daily amounts per pupil varying with the distance from school. Urban areas are not excluded from receiving these subsidies, but in practice this has been discouraged and the cities have not made application. In Toronto and Hamilton, no special school buses are chartered for regular

transportation of children to and from school, other than handicapped children. Public transit companies in both cities, however, offer student fares which most likely incur losses that are met by other transit riders and the municipal taxpayers at large. The provincial government does pay the transit fare for children from needy families.

5. Winnipeg

In Manitoba the provincial government subsidizes transportation for all pupils living over one mile from school, except where the child lives in a city, town or village and attends a school in the same municipality. Therefore, there is no provincial assistance available to Winnipeg which employs no special school buses and absorbs through its transit company any losses incurred by school travel.

6. Regina and Saskatoon

The Province of Saskatchewan provides no assistance for school transportation in the cities of Regina and Saskatoon. The School Boards provide service with special charter buses only to accommodate temporary situations. The public transit companies absorb any losses due to pupil travel.

7. Vancouver

The Government of the Province of British Columbia subsidizes school transportation according to a formula which states that for each pupil living over three miles from school, the Board may claim 10 cents per mile, up to a maximum of one dollar per day. While the City of Vancouver does not claim any subsidy, several of the suburban municipalities provide special transportation and do obtain provincial grants. The Boards are free to use the grants for hiring charter buses, or towards covering their transit company's deficit. In some municipalities the transit company, particularly B. C. Hydro, absorbs deficits caused by pupil transportation, while in others the School Board covers these deficits.

V - REASONS FOR SUPPORTING CITY SCHOOL TRANSPORTATION

In view of the fact that very few other cities support school bus transportation, the question arises whether there is any good reason for the grants to Edmonton and Calgary to continue at all. The possible reasons which are advanced are:

- to permit school consolidation and specialization
- to give urban families the same financial support for school transportation as rural families
- to prevent school transportation costs being a barrier to equal educational opportunity.

The validity, or otherwise, of these claims has to be established first. Then when the purpose of the grants has been agreed, the basis for a formula can be laid down.

SCHOOL CONSOLIDATION AND SPECIALIZATION

The initial purpose of the grants was to permit School Boards in rural areas to consolidate small schools into larger units. There was no public transportation at all, and the Foundation Program grants were a method of enabling such transportation to be provided.

This reason does not hold within the urbanized area served by transit. It is true that as the demand for school transportation expands, it places demands beyond the capacity of the existing transit

system. However, in most cities, this increasing demand is met by the transit system keeping pace with it. When the student fare in Edmonton was sold at 4 for 25 cents, this, of course, could not be an attractive policy for the transit system. In fact, it could claim that the potential loss would be such that it would not be justified in servicing this demand. Moreover, the existence of the School Foundation Program grant provided an alternative solution.

Nevertheless, if the Foundation Program had not been available to the urbanized parts of the cities, experience elsewhere suggests that a combination of increased students' fares, adult fares and subsidy would have been found to have enabled the transit systems to serve the demand.

EQUALITY OF SUPPORT

The students in rural areas are bussed to school free. There is a feeling, therefore, that on grounds of fairness, urban families should have the same privilege. When rural students had to be bussed to be given an education equal in quality to that which an urban student could get by walking, this argument could not be sustained. But when such a high proportion of urban students have to be transported also, it obviously has merit.

Of course, equality could also be achieved by charging rural students the same bus fare as would be paid in the city, the Foundation Program then making up only the deficit.

EQUALIZATION
OF OPPORTUNITY

There appears to be little objection to parents bearing modest parts of the cost of education - pencils, paper, textbooks and minor items. However, when the real cost of transporting a child to school becomes about \$80 a year (or 10% of the educational costs), passing on this cost to the parents, who may have several children at school, is held to be a denial of the principle of substantially free education. Allowing the subsidization of the fares to be left to other transit riders or to city taxpayers is seen as unfair. If these arguments are accepted, then the School Foundation Program appears the logical method of financing at least some of this part of the educational bill.

VI - BASIS FOR A FORMULA

It seems to us reasonable, on the grounds of fairness, that the transport operators should receive a fare which enables them to cover their costs, and, for a private operator, a measure of profit. There appears to be no logical reason why other transit riders or city taxpayers should be called on to pay part of the cost, especially when this is not done in rural areas. Reduced student fares in other cities appear not to be deliberate policy. Rather, they are carried over from the past when special rates were necessary to attract children, accompanied by their parents.

There appear to be two groups who should be called on to bear at least part of the expense - the School Foundation Program and the parents. In the rural areas, the School Foundation Program meets 90% (or in some cases all) of the costs of students living over 1.5 miles from school. Those within 1.5 miles are either expected to walk or to be transported at parents' expense (e.g. by car).

The segregation on the basis of under or over 1.5 miles is difficult to administer in cities, because of the unfairness to next-door neighbours, one of whom may receive \$200 a year in the form of passes for transportation of his three children, while the other receives nothing. However, it could form the basis for estimating reasonable transportation funds for School Boards, who could then use the funds as they saw fit. This is the basis of our proposal.

PROPOSED FORMULA FOR
FOUNDATION PROGRAM GRANT

In our proposed formula, we suggest that the Foundation Program allocate funds to School Boards on the basis of:

- the numbers of students expected to live over 1.5 miles from school in a system with schools serving normal attendance areas
- a reasonable allowance for each such pupil to cover their transportation.

How the funds are used would be the responsibility of the Boards.

Expected Numbers

We would suggest that with present densities of population and school sizes, in an acceptably planned system, the percentages of the enrolment who might be expected to live over 1.5 miles from a school, would be:

Elementary	1%
Junior high	10%
Senior high	45%

If Boards locate their schools poorly or concentrate on larger schools than the norm, they will transport more pupils than these proportions. As an example, the W.P. Wagner vocational school, located towards the south-east periphery of Edmonton, produces a higher than normal transportation load. Addition of further vocational facilities elsewhere will be expected to reduce this load and bring the amount of

transportation down to more normal proportions.

School Boards may, of course, wish to locate schools on inexpensive land, but, in this case, they should anticipate that extra transportation costs may offset their apparent saving in this regard.

Separate School Boards will, of course, have to transport higher proportions of students, because of their lower density of population. Parents of some children may elect to live within reasonable distance of a school at their choice. Where they do not, it can be argued that this extra cost of transportation is part of the price of separateness, and should be paid by the section of the population wishing to be educated separately. It should be noted that the Separate School Board at Calgary, where the density of population is lowest, do at present expect their pupils to walk further before they claim costs for them.

Allowance per pupil

Provided there remains a substantial amount of competitive tendering, the fairest estimate of cost is that based on chartered bus rates. Transit companies cannot easily isolate how much a particular movement, such as the student load, costs them.

If it is agreed that regulations can safely be changed to permit 25% standing level, and if each bus should be able to be used on average 1.6 times, then each bus should be able to carry twice its seated load each day. Thus a \$25-a-day (\$5,000 a year) bus with capa-

city for 42 seated passengers should be able to carry 84 students each way each day, i.e. a per pupil cost of \$60 per year. We would suggest that information from all contract buses be used as follows in deriving this figure:

- total all the seats available in the contract buses
- total the annual cost
- divide the cost by the number of seats to obtain an average per seat cost
- halve this value to obtain a per-pupil cost, on the assumption that the average bus carries two pupils per day per seat available.

In accordance with Foundation Program practice elsewhere School Boards might be reimbursed for 90% of the costs, as estimated by this formula.

We would note that to permit 25% standing passengers, the buses should be suitably equipped with stanchions and hanging straps.

Updating

We would suggest that the formula be held constant for a period of years. Periodically, it should be reviewed in the light of educational trends. If there is a greater amount of specialization of facilities in vocational schools, education parks and other similar developments, higher proportions of the enrolment may need to be transported. If longer transportation distances are involved, a lower utilization of buses may result. These changes would be expected to change the proportions gradually each year, calling for a periodic up-

dating of the necessary proportions and values used in the formula.

POSSIBLE IMPLEMENTATION

BY CITY SCHOOL BOARDS

Whatever the basis of Foundation Program grants, the School Boards should be free to allocate these funds as they see fit. Thus for two students living 1.51 and 1.49 miles from school, respectively, the Foundation Program will have allocated full funds for the former and none for the latter. However, the School Board may, if it sees fit, subsidize each student to the extent of half-fare. The parents would bear responsibility for the balance.

We suggest that the School Boards may wish to consider a scheme by which students would ride any bus, chartered or transit, by paying an appropriate contribution towards the real fare. The transit company (via the School Board) or the School Board as charterer, would be reimbursed for the balance of the fare due. This might be done by agreeing a rate with the transit company or charterer for an annual or monthly pupil pass (say \$60 per year) valid during certain agreed hours. These passes would then be sold to pupils at a lower rate, (say \$30 per year, or \$3 per school month) the deficit being made up from the Foundation Program grant.

As has been shown in our previous analysis, the chartering should, in general, be able to be brought down to transit fare costs by using standing loads and efficient scheduling. However, if the

preferred transportation system develops with transit in the inner areas and charters on the longer hauls in the outer areas only, charter costs will be higher than average and transit costs lower than average.

In its planning, the School Boards should estimate the costs they will incur from the transit company and the contractors, and compute the necessary student fare bearing in mind the Foundation Program grants available.

VII - DISCUSSION

PROBABLE COST TO

FOUNDATION PROGRAM

According to the formula proposed, an estimated 28,760 pupils would have been eligible for transportation assistance in 1968. Under the assumptions of revised contract bus regulations, the cost per pupil per year would have been estimated at about \$60. Hence, supposing the Foundation Program would have been called on to cover 90% of the estimated \$1.7 million cost, the grants would have totalled about \$1.5 million. Increased enrolments and higher bussing costs will increase this sum annually, but the system will maintain control and keep cost increases within reasonable bounds. Under the formula, Calgary would stand to be eligible for more than it now receives or claims, while Edmonton would be held closer to its present allowance.

POSSIBLE COST

TO SCHOOL BOARDS

If the School Board wish to adopt the principle of an equalized fare for all students, wherever they live, they may choose to use the Foundation Program grants to subsidize the fares. Although the available data only allow very approximate calculations, they suggest that the grants could be used to enable all children who want to ride to do so at half-fare.

Present Edmonton
Riders Carried Free

In Edmonton, about 16,300 pupils are transported free each day under the present system, i.e. about 6.5 million rides a year. Possibly some of these would not ride the buses every day if they had to pay, and some who are given free passes or tickets do not use them. Other students ride the buses and pay their own fares.

Present Estimated
Riders Who Pay

Appendix B quotes information from Edmonton on their ticket sales, not including the free school passes. From an examination of the riding when schools are closed, these data suggest that about 277,000 children's rides per month (or 3.3 million rides a year) occur for week-end and out-of-school uses. The remaining 1.1 million rides a year, peaking 50% into January and February, are perhaps the home-to-school trips. In addition, some senior high students at adult rates must be included in the adult figures.

Estimated Total
Student Usage

Combining the free and paid tickets, possibly 8.0 million student rides a year would be taken to and from school. Calgary with lower enrolment and smaller school districts would be somewhat less, say 7.0 million rides a year. This leads to a grant total of 15 million student rides a year. If each ride were subsidized by up to 10 cents (or up to \$40 per pupil per year), this would likely be within the funds

allocated by the Foundation Program. This analysis suggests that the amount of the subsidy would be about half the adult fare for each rider. In any event, the school boards would have sufficient flexibility in the price at which they resold tickets or passes to balance the subsidy with the grants.

INTEGRATION OF TRANSPORTATION AND OTHER GRANTS

In carrying out this study, we have limited our consideration to urban transportation as required by the terms of reference. However, we have been aware of the need to make our system equitable in relation to rural transportation. Our recommendations would be even more equitable if rural boards were to be paid finances by a formula (rather than essentially 90% of costs), and if rural students were to contribute towards their fares. These conditions may be inappropriate for rural transportation, but we draw them to your attention at this time.

We have also been aware that transportation is only one of the cost items covered by grants. When transportation is repaid 90% to boards, there may be a tendency to locate schools where land is inexpensive or to concentrate facilities more than would be the case if the full costs were apparent at the time the decisions are made. We would, therefore, suggest that, when plans are made for a new facility, such as the W.P. Wagner vocational school, the estimated costs of transportation be reported in the initial planning. The decision in this instance might have been unchanged, but the capitalized value of the year-by-year trans-

portation costs is large. It should be made evident that this is appreciated when the location is selected.

STUDY OF SCHOOL BUS
TRANSPORTATION
IN CALGARY AND EDMONTON

DEPARTMENT OF EDUCATION
EDMONTON

APPENDIX A

THE SCHOOL GRANTS ACT

DEPARTMENT OF EDUCATION

EDMONTON

THE SCHOOL GRANTS ACT

REGULATIONS GOVERNING A STUDY OF
TRANSPORTATION OF URBAN SCHOOL PUPILS

1. The Department of Education shall engage a firm of consultants to develop a suitable formula for supporting the cost of conveying school age pupils to and from school in city school systems.
2. Generally shall study and examine:
 - a) The present transportation systems, criteria and costs and relate the data to pupil needs in cities in relation to
 - i) effect on school opening
 - ii) time involved
 - iii) service provided
 - under $1\frac{1}{4}$ miles
 - between $1\frac{1}{4}$ miles and 3 miles
 - over 3 miles (section 308 of The School Act)
 - iv) types of conveyances used.
 - (b) The present criteria of transportation, and in consultation with the Department of Education and School Boards attempt to obtain a consensus on criteria of service which should be provided, e.g.
 - i) who should be provided with bus transportation of any kind?
 - ii) when should service by a municipal bus be considered inadequate and special buses be scheduled instead?

- iii) what proportion of bus system overhead costs is it reasonable to apportion to the school pupils?
 - c) The costs structure as it affects school boards in cities, e.g.
 - i) the effect of conveying pupils on city transit systems
 - ii) costs incurred
 - iii) comparative study of relationships between city systems and contract buses.
 - d) The approaches adopted in other major Canadian cities.
 - e) The significant information (c) to the conveyance operations in Edmonton and Calgary.
- 3. The firm of consultants may be paid on a progress basis on presentation of appropriate statements of account.
- 4. The costs of the study shall be a charge to Apprn. 1303 Grants to Schools and shall not exceed \$20,000.00.

STUDY OF SCHOOL BUS
TRANSPORTATION
IN CALGARY AND EDMONTON

DEPARTMENT OF EDUCATION
EDMONTON

APPENDIX B

VOLUME OF BUS RIDING ON
EDMONTON TRANSIT SYSTEM

DEPARTMENT OF EDUCATION
EDMONTON

VOLUME OF BUS RIDING ON
EDMONTON TRANSIT SYSTEM

Ticket Sales (excluding sales
via school boards)

Edmonton Transit System - 1968

	<u>Adult</u>	<u>Children</u>	<u>Total</u>
January	1,509,410	530,504	2,039,914
February	1,393,735	534,640	1,928,375
March	1,513,515	380,416	1,893,931
April	1,366,870	324,632	1,691,502
May	1,428,035	281,600	1,709,635
June	1,331,475	279,640	1,611,115
July	1,408,175	277,104	1,685,279
August	1,354,275	313,880	1,668,155
September	1,474,825	400,240	1,875,065
October	1,483,475	409,000	1,892,475
November	1,449,575	318,725	1,768,303
December	1,327,075	313,792	1,640,867
	<hr/>	<hr/>	<hr/>
TOTAL	17,040,440	4,364,176	21,424,616
	79.6%	20.4%	
REVENUE			
	3,408,088.00	545,522.00	3,953,610.00
	86.2%	13.8%	

